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EXAMINER	
BERHANE, YOSIEF H	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/568,346	IKAWA ET AL.	
	Examiner	Art Unit	
	YOSIEF BERHANE	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04/02/2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,11-13, 15-20,* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,11-13, 15-20,* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 April 2009* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/17/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1, 11-13, 15-20 have been examined and are pending. Claims 2-10 and 14 have been cancelled.

Information Disclosure Statement

2. An initialed and dated copy of Applicant's IDS form 1449 submitted 06/17/2009, is attached to the instant office action.

Response:

3. On page 11 of Applicants Response, regarding claim 1, applicant argues that "Although ARIB SDT-T75 describes using port numbers for identifying applications; there is no description of a transaction management entity identifying transactions based upon a transaction ID that uniquely identifies a corresponding port number. Without such an identify, ARIB SDT-T75 cannot anticipate claim 1 nor any of its dependent claims"

Furthermore, on page 12 of Applicants Response, regarding claim 16, applicant argues that "ARIB SDT-T75 describes, for a layer 2, a maximum octet length. However, there is no description of the designation of any bulk area that includes a buffer region as in amended claim 16. Thus, claim 16 clearly distinguishes from the reference applied.

Applicant arguments are persuasive but moot in view of the new grounds of rejection below

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1, 11-13, 15, 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Non-patent Literature "Dedicated Short-Range Communication System, ARIB STANDARD, Version 1.0" (hereinafter referred to as "ARIB STD-T75"), and further in view of publication 2003/0200329 to Delaney et al. (hereinafter Delaney).

As per claim 1, ARIB STD-T75 teaches a communication system including (In sections, 2.3.2.1 and 2.3.1.1, the ARIB STD-T75 discloses multiple applications and services of a communication system. See also 2.1.1, 2.1.2 and 2.1.3. The communication system consists of which is installed at the road side and an On-Board Equipment (OBE) which is installed in the vehicle.):

a plurality of mobile stations (In sections, 2.3.2.1 and 2.3.1.1, the ARIB STD-T75 discloses a communication system consisting of On-Board Equipment installed in vehicles (claimed mobile stations). See also 2.1.1, 2.1.2 and 2.1.3);

and a base station system communicating with the mobile stations (sections, 2.3.2.1 and 2.3.1.1, the ARIB STD-T75 discloses a road side unit (Claimed base station). See also 2.1.1, 2.1.2 and 2.1.3)

and providing the mobile stations with a plurality of application services (In sections, 2.3.2.1 and 2.3.1.1, the ARIB STD-T75 discloses multiple applications and services that the communication system is able to manage),

through communication between the mobile stations, which travel on a road (In sections, 2.3.2.1 and 2.3.1.1, the ARIB STD-T75 discloses a communication system consisting of On-Board Equipment installed in vehicles (claimed mobile stations). See also 2.1.1, 2.1.2 and 2.1.3)

and the base station system, which is installed along the road (sections, 2.3.2.1 and 2.3.1.1, the ARIB STD-T75 discloses a road side unit (Claimed base station). See also 2.1.1, 2.1.2 and 2.1.3),

wherein each of the mobile stations and the base station system comprises a transfer service processing entity implementing data transfer among the plurality of applications (Fig 4.4.1.2.1, ARIB STD-T75 discloses a layer 7 structure for the data transfer service where a Transfer Kernel element (claimed transfer processing entity) is used for data transfer services. Note, as disclosed in section 4.4.2, the layer 7 kernel provides services realized by the kernel elements needed to support several applications),

wherein the transfer service processing entity identifies an application, with one of the mobile stations and the base station system as a sending source (Section 4.4.2.1.2, ARIB STD-T75 discloses that a transfer kernel element (claimed transfer service processing entity) offers its services by means of service primitives, which includes a GET primitive, where as disclosed in 4.4.3.4.1, the GET primitives results in the retrieval of information from a peer application on the base station/mobile station side.)

from among the plurality of applications (section 4.4.2, the layer 7 kernel provides services realized by the kernel elements needed to support several applications),

and a transaction management entity for providing unidirectional data transmission and request-response transaction services (In sections 2.4.2, as well as 3.2.7: ARIB STD-T75 discloses the methods of data transmission which includes a one way, half-duplex communication. Furthermore, in section 2.5.1, ARIB STD-T75 discloses that a "MAC Sub-Layer, Layer Management Entity (LME) and System Management Entity (SME) of Layer 1 are used to exchange and manage service primitives of each layer. Note that service primitives are used to exchange request/response type communication. A list of service primitives are disclosed in section 4.4.3.2),

and an identifier designated by and identifying a respective application of the plurality of applications (section 4.2.4.2.1.7, in which ARIB STD-T75 discloses that application identifiers

are designated by applications in order to specify the types of application services provided from a base station.),

and the transaction management entity comprising: includes undelivered data segment resending means, for resending undelivered data segments of a message (In section 2.5.1.2, ARIB STD-T75 discloses the features of the Layer 2 structure that is adopted from the OSI model. In Layer 2, which includes the MAC Sub-layer, a service to resend data is provided. Also see, 2.5.2, under the heading, Communication Phase.),

data sending/receiving means for sending and receiving each message of a plurality of messages (In section 2.5.1.2, ARIB STD-T75 discloses the features of the Layer 2 structure that is adopted from the OSI model. In Layer 2, which includes the MAC sub-layer, a service to establish a link connection is provided (Association phase) to allow a base station and a mobile station to send and receive data. Also see, 2.5.2, under the heading, Association phase and Communication Phase.),

and message segmenting/assembling means for segmenting a message into a plurality of data segments and assembling a plurality of data segments of a message into the message (In section 4.3.1.2.1, ARIB STD-T75 discloses the features of the MAC sub-layer, a service for fragmenting/assembling data is disclosed.).

ARIB STD-T75 does not disclose expressly: utilizing port numbers and wherein the transaction management entity identifies a unit of a transaction between a mobile station and the base station system utilizing a transaction ID uniquely identifying a corresponding port number

Paragraph 0022, Delaney discloses a connection between a client and a server is uniquely identified via an identifier of the connection including the IP addresses and TCP port numbers of the

client and server. The connection may include multiple transactions of requests. Each transaction is identified by a transaction identification number that identifies a unique transaction between the client and server.

ARIB STD-T75 and Delaney are analogous art because they are from the same field of endeavor, dealing specifically with managing communication of application services among user and host stations.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the system of ARIB STD-T75, by utilizing transaction ID's and port numbers for communication among user/host stations, as suggested by Delaney.

The suggestion/motivation for doing so would have been providing reliable communication by ensuring the uniqueness over the lifetime of a given TCP connection to a server/host (paragraph 0022, Delaney).

Therefore, it would have been obvious to combine Delaney with ARIB STD-T75 for the benefit of providing reliable communication for a given TCP connection, to obtain the invention as specified in claim 1.

As per claim 11, the combination of ARIB STD-T75 and Delaney teach wherein the transaction management entity of a sending station, of the mobile station and the base station system, divides a message into a plurality of data segments (In section 4.3.1.2.1, ARIB STD-T75 discloses the features of the MAC sub-layer, a service for fragmenting/assembling data is disclosed.)

and adds to each of the data segments the transaction ID corresponding to the respective port number (Paragraph 0022, Delaney discloses a connection between a client and a server is uniquely identified via an identifier of the connection including the IP addresses and TCP port numbers of the client and server. The connection may include multiple transactions of requests. Each transaction is

identified by a transaction identification number that identifies a unique transaction between the client and server.)

and one of sequential numbers for transaction identification (In section, 4.2.4.2.2.1.3, ARIB STD-T75 discloses where sequence numbers are used to prevent duplicated messages)

and sends the message as the plurality of data segments (Fig 4.4.1.2.1, ARIB STD-T75 discloses a layer 7 structure for the data transfer service where a Transfer Kernel element (claimed transfer processing entity) is used for data transfer services.)

with the transaction ID (Paragraph 0022, Delaney discloses a connection between a client and a server is uniquely identified via an identifier of the connection including the IP addresses and TCP port numbers of the client and server. The connection may include multiple transactions of requests. Each transaction is identified by a transaction identification number that identifies a unique transaction between the client and server.)

and sequential numbers (In section, 4.2.4.2.2.1.3, ARIB STD-T75 discloses where sequence numbers are used to prevent duplicated messages),

and the transaction management entity of a receiving station, of the mobile stations and the base station system, reassembles the message sent (In section 4.3.1.2.1, ARIB STD-T75 discloses the features of the MAC sub-layer, a service for fragmenting/assembling data is disclosed)

by combining the data segments (In section 4.3.1.2.1, ARIB STD-T75 discloses the features of the MAC sub-layer, a service for fragmenting/assembling data is disclosed)

having identical transaction IDs (Paragraph 0022, Delaney discloses that each transaction is identified by a transaction identification number that identifies a unique transaction between the client and server.),

in an order based on the sequential numbers (In section, 4.2.4.2.2.1.3, ARIB STD-T75 discloses where sequence numbers are used to prevent duplicated messages).

As per claim 12, the combination of ARIB STD-T75 and Delaney teach wherein the transaction management entity, in dividing a message into data segments (In section 4.3.1.2.1, ARIB STD-T75 discloses the features of the MAC sub-layer, a service for fragmenting/assembling data is disclosed),

controls duration between transmissions of data segments, depending on status of a sending queue in a lower layer (In Section 4.4.6.3, ARIB STD-T75 discloses where the layer 7 shall inquire about the state for transmission in layer 2. Layer 7 will transmit data or wait depending on the status of layer 2. Also see fig. 4.4.6.3 "Data with priority transfer sequence").

As per claim 13, the combination of ARIB STD-T75 and Delaney teach wherein, when the transaction management entity of a receiving station, of the mobile stations and the base station system, receives a final data segment of the message, the transaction management entity of the receiving station notifies the transaction management entity of the sending station of the sequential numbers of any undelivered data segments (In Section 4.3.3.5.2.1.2.1, ARIB STD-T75 discloses a retransmission procedure, in which a transmitting station does not receive an ACK from the receiving station. In such a process, the retransmission is carried out for the sequence number affixed to the fragmented segments. The retransmission is carried out until the ACK for the last fragment has been received),

and the undelivered data resending means of the transaction management entity of the sending station resends only the undelivered data segments (In Section 4.3.3.5.2.1.2.1, ARIB STD-T75

discloses a retransmission procedure, in which a transmitting station does not receive an ACK from the receiving station. In such a process, the retransmission is carried out for the sequence number affixed to the fragmented segments. The retransmission is carried out until the ACK for the last fragment has been received).

As per claim 15, the combination of ARIB STD-T75 and Delaney teach wherein, when the transaction ID, in a newly received data segment, is identical to the transaction ID of a data segment that has been previously received the transaction management entity handles the newly received data segment identically to the data segment that has been previously received (In Section 4.3.3.5.2.1.1, ARIB STD-T75 discloses where sequence numbers of received data are compared in order to determine if a message has been duplicated. In the case where the message is found to be duplicated, the message is discarded.).

As per claim 17, the combination of ARIB STD-T75 and Delaney teach wherein, when the transaction ID, in a newly received data segment is identical to the transaction ID of a data segment that has been previously received, the transaction management entity handles the newly received data segment identically to the data segment that has been previously received (In Section 4.3.3.5.2.1.1, ARIB STD-T75 discloses where sequence numbers of received data are compared in order to determine if a message has been duplicated. In the case where the message is found to be duplicated, the message is discarded.).

5. **Claims 16 and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of ARIB STD-T75 and Delaney as applied to claim 1 above, and further in view of Patent 6,834,326 to Wang et al. (hereinafter Wang)

As per claim 16, the combination of ARIB STD-T75 and Delaney teach transaction management entity and plurality of applications

The combination of ARIB STD-T75 and Delaney do not disclose expressly: a bulk area indicating a buffer region for assembling data segments into a message, and a bulk size indicating size of the buffer region designated by an application

Wang discloses in Col. 15 lines 10-15, Segmentation and reassembly of data can be moved into hardware, where the hardware support can include a hardware RAID controller. Note, as disclosed in fig. 5, the Raid Controller includes disks (claimed buffer region) for stripping/interleaving data. Further, as Wang discloses in Col. 9, lines 13-31, the RAID controller will automatically determine the underlying network, the number of disks, capacity of the disks, block sizes of the disk, cache information, and other disk characterization information, where the User-supplied information includes the type of application(s) that will be run (generally, bulk data transfer, transaction processing, or hybrid) as well as the estimate on required disk capacity for each application.

ARIB STD-T75, Delaney, and Wang are analogous art because they are from the same field of endeavor, dealing specifically with managing communication of application services among user and host stations.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the combination of ARIB STD-T75 and Delaney, by utilizing transaction a bulk area for assembling a data message and determining a bulk size designated by an application, as suggested by Wang.

The suggestion/motivation for doing so would have been to provide fast, scalable, high-bandwidth access to data in a communication network (Wang, Col. 1, lines 29-38)

Therefore, it would have been obvious to combine Wang with Delaney and ARIB STD-T75 for the benefit of providing a faster more scalable access to data in a communication network, to obtain the invention as specified in claim 16.

As per claim 18, the combination of ARIB STD-T75, Delaney and Wang teach wherein the transaction management entity (section 2.5.1, ARIB STD-T75 discloses that a "MAC Sub-Layer, Layer Management Entity (LME) and System Management Entity (SME))

aborts a transaction having a transaction ID identical to a transaction ID (Wang discloses, Col. 12, lines 65-67, that duplicate packets are discarded, as determined by looking at the NetSCSI transaction ID and sequence number field)

corresponding to the port number (Paragraph 0022, Delaney discloses a connection between a client and a server is uniquely identified via an identifier of the connection including the IP addresses and TCP port numbers of the client and server.)

for which the corresponding application had made an abort request (Col. 26, lines 35-37, Wang discloses an abort request).

6. **Claims 19** is rejected under 35 U.S.C. 103(a) as being unpatentable over ARIB STD-T75, and further in view of patent 6,496,502 to Fite, Jr. et al. (hereinafter Fite)

As per claim 19, ARIB STD-T75 a communication system including: a plurality of mobile stations (In sections, 2.3.2.1 and 2.3.1.1, the ARIB STD-T75 discloses a communication system

consisting of On-Board Equipment installed in vehicles (claimed mobile stations). See also 2.1.1, 2.1.2 and 2.1.3);

and a base station system communicating with the mobile stations (sections, 2.3.2.1 and 2.3.1.1, the ARIB STD-T75 discloses a road side unit (Claimed base station). See also 2.1.1, 2.1.2 and 2.1.3)

and providing the mobile stations with a plurality of application services through communication between the mobile stations (In sections, 2.3.2.1 and 2.3.1.1, the ARIB STD-T75 discloses multiple applications and services that the communication system is able to manage),

which travel on a road (sections, 2.3.2.1 and 2.3.1.1, the ARIB STD-T75 discloses a road side unit (Claimed base station). See also 2.1.1, 2.1.2 and 2.1.3),

and the base station system, which is installed along the road (In sections, 2.3.2.1 and 2.3.1.1, the ARIB STD-T75 discloses a communication system consisting of On-Board Equipment installed in vehicles (claimed mobile stations). See also 2.1.1, 2.1.2 and 2.1.3),

wherein each of the mobile stations and the base station system comprises a transfer service processing entity (Fig 4.4.1.2.1, ARIB STD-T75 discloses a layer 7 structure for the data transfer service where a Transfer Kernel element (claimed transfer processing entity) is used for data transfer services. Note, as disclosed in section 4.4.2, the layer 7 kernel provides services realized by the kernel elements needed to support several applications),

when a Dedicated Short-Range Communication (DSRC) connection notification is received from the sending station (Section 4.3.4.1.2.5, ARIB STD-T75 discloses where a primitive is passed from the LLC sub-layer to the layer-7 to indicate success or failure of a request to establish a connectionless-mode data transfer);

and a transaction management entity providing unidirectional data transmission and request-response transactions (In sections 2.4.2, as well as 3.2.7: ARIB STD-T75 discloses the methods of data transmission which includes a one way, half-duplex communication. Furthermore, in section 2.5.1, ARIB

STD-T75 discloses that a "MAC Sub-Layer, Layer Management Entity (LME) and System Management Entity (SME) of Layer 1 are used to exchange and manage service primitives of each layer. Note that service primitives are used to exchange request/response type communication. A list of service primitives are disclosed in section 4.4.3.2),

wherein the transaction management entity of the sending station sends, and the transaction management entity includes undelivered data segment resending means for resending undelivered data segments of a message (In section 2.5.1.2, ARIB STD-T75 discloses the features of the Layer 2 structure that is adopted from the OSI model. In Layer 2, which includes the MAC Sub-layer, a service to resend data is provided. Also see, 2.5.2, under the heading, Communication Phase.),

data sending/receiving means for sending and receiving each message of a plurality of messages (In section 2.5.1.2, ARIB STD-T75 discloses the features of the Layer 2 structure that is adopted from the OSI model. In Layer 2, which includes the MAC sub-layer, a service to establish a link connection is provided (Association phase) to allow a base station and a mobile station to send and receive data. Also see, 2.5.2, under the heading, Association phase and Communication Phase.),

and message segmenting/assembling means for segmenting a message into a plurality of data segments and assembling a plurality of data segments of a message into the message (In section 4.3.1.2.1, ARIB STD-T75 discloses the features of the MAC sub-layer, a service for fragmenting/assembling data is disclosed.).

Although ARIB STD-T75 discloses transfer service processing entity (Section 4.4.2.1.2, ARIB STD-T75 discloses that a transfer kernel element (claimed transfer service processing entity) offers its services by means of service primitives, which includes a GET primitive, where as disclosed in 4.4.3.4.1,

the GET primitives results in the retrieval of information from a peer application on the base station/mobile station side),

mobile stations (In sections, 2.3.2.1 and 2.3.1.1, the ARIB STD-T75 discloses a communication system consisting of On-Board Equipment installed in vehicles (claimed mobile stations). See also 2.1.1, 2.1.2 and 2.1.3)

and base station (sections, 2.3.2.1 and 2.3.1.1, the ARIB STD-T75 discloses a road side unit (Claimed base station). See also 2.1.1, 2.1.2 and 2.1.3),

ARIB STD-T75 does not expressly disclose: sending a list of accessible ports to a sending station, and upon receipt of the list of accessible ports, transaction start enable information to an application which has requested starting of a transaction with a port that is included in the list of accessible ports, so that the application starts the transaction,

Fite discloses, in Col. 2, lines 33-39, discloses that a list of egress ports for the destination station is obtained from a station list contained in a second switch. An egress port is selected from the list of egress ports based upon the source address, destination address and trunk identifier. The data frame is sent to the destination station through the selected egress port.

ARIB STD-T75 and Fite are analogous art because they are from the same field of endeavor, dealing specifically with managing communication of data among user and host stations.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to to modify the system of ARIB STD-T75 by including a list of ports to establish a communication, as suggested by Fite.

The suggestion/motivation for doing so would have been to provide high data bandwidth by allowing load balancing (Fite, Col. 2, lines 1-9)

Therefore, it would have been obvious to combine Fite with ARIB STD-T75 for the benefit of providing higher data bandwidth by allowing load balancing, to obtain the invention as specified in claim 19.

7. **Claims 16 and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of ARIB STD-T75, Delaney and Wang, and further in view of Publication 2003/0189924 to Kadambi et al. (hereinafter Kadambi)

As per claim 20, the combination of ARIB STD-T75, Delaney and Wang teach a communication system including: a plurality of mobile stations (In sections, 2.3.2.1 and 2.3.1.1, the ARIB STD-T75 discloses a communication system consisting of On-Board Equipment installed in vehicles (claimed mobile stations). See also 2.1.1, 2.1.2 and 2.1.3)

and a base station system communicating with the mobile stations (sections, 2.3.2.1 and 2.3.1.1, the ARIB STD-T75 discloses a road side unit (Claimed base station). See also 2.1.1, 2.1.2 and 2.1.3)

and providing the mobile stations with a plurality of application services through communication between the mobile stations, which travel on a road (In sections, 2.3.2.1 and 2.3.1.1, the ARIB STD-T75 discloses multiple applications and services that the communication system is able to manage),

and the base station system, which is installed along the road (sections, 2.3.2.1 and 2.3.1.1, the ARIB STD-T75 discloses a road side unit (Claimed base station). See also 2.1.1, 2.1.2 and 2.1.3),

wherein each of the mobile stations and the base station system comprises a transfer service processing entity implementing data transfer among the plurality of applications (Fig 4.4.1.2.1, ARIB STD-T75 discloses a layer 7 structure for the data transfer service where a Transfer Kernel element (claimed transfer processing entity) is used for data transfer services. Note, as disclosed in section 4.4.2,

the layer 7 kernel provides services realized by the kernel elements needed to support several applications),

the transfer service processing entity identifying an application of one of the mobile stations and the base station system as a sending source, from among the plurality of applications (Section 4.4.2.1.2, ARIB STD-T75 discloses that a transfer kernel element (claimed transfer service processing entity) offers its services by means of service primitives, which includes a GET primitive, where as disclosed in 4.4.3.4.1, the GET primitives results in the retrieval of information from a peer application on the base station/mobile station side.),

utilizing port numbers (Paragraph 0022, Delaney discloses a connection between a client and a server is uniquely identified via an identifier of the connection including the IP addresses and TCP port numbers of the client and server.);

and a transaction management entity providing unidirectional data transmission and request response transactions, wherein the transaction management entity sends (In sections 2.4.2, as well as 3.2.7: ARIB STD-T75 discloses the methods of data transmission which includes a one way, half-duplex communication. Furthermore, in section 2.5.1, ARIB STD-T75 discloses that a "MAC Sub-Layer, Layer Management Entity (LME) and System Management Entity (SME) of Layer 1 are used to exchange and manage service primitives of each layer. Note that service primitives are used to exchange request/response type communication. A list of service primitives are disclosed in section 4.4.3.2),

upon receipt of a Dedicated Short-Range Communication (DSRC) connection notification, transaction enable information to an application which has requested starting of a transaction without a port number, so that the application starts the transaction (Section 4.3.4.1.2.5, ARIB STD-T75 discloses where a primitive is passed from the LLC sub-layer to the layer-7 to indicate success or failure of a request to establish a connectionless-mode data transfer. Note, ARIB STD-T75 does not send port numbers),

and the transaction management entity sends a transaction abort request to the application that has started the transaction when the transaction management entity receives from a sending station, of the mobile stations and the base station system (Wang discloses, Col. 12, lines 65-67, that duplicate packets are discarded, as determined by looking at the NetSCSI transaction ID and sequence number field),

and undelivered data segment resending means for resending undelivered data segments of a message (In section 2.5.1.2, ARIB STD-T75 discloses the features of the Layer 2 structure that is adopted from the OSI model. In Layer 2, which includes the MAC Sub-layer, a service to resend data is provided. Also see, 2.5.2, under the heading, Communication Phase.),

data sending/receiving means for sending and receiving each message of a plurality of messages (In section 2.5.1.2, ARIB STD-T75 discloses the features of the Layer 2 structure that is adopted from the OSI model. In Layer 2, which includes the MAC sub-layer, a service to establish a link connection is provided (Association phase) to allow a base station and a mobile station to send and receive data. Also see, 2.5.2, under the heading, Association phase and Communication Phase.),

and message segmenting/assembling means for segmenting a message into a plurality of data segments and assembling a plurality of data segments of a message into the message (In section 4.3.1.2.1, ARIB STD-T75 discloses the features of the MAC sub-layer, a service for fragmenting/assembling data is disclosed.).

the combination of ARIB STD-T75, Delaney and Wang do not expressly disclose: a notification that the port number of the application is not effective,

Kadambi discloses, in Paragraph 0109, that a notification message is sent to all ingress ports indicating that the destination egress port controlled by that egress manager is unavailable.

ARIB STD-T75, Delaney, Wang and Kadambi are analogous art because they are from the same field of endeavor, dealing specifically with managing communication of data among user and host stations.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art modify the combination of ARIB STD-T75, Delaney, and Wang, by providing a notification that the port number of the application is not effective, as suggested by Kadambi.

The suggestion/motivation for doing so would have been to decrease delay in packet forwarding by maintaining corresponding port mappings, (Kadambi, Paragraph 0006)

Therefore, it would have been obvious to combine Kadambi, with Wang, Delaney and ARIB STD-T75 for the benefit of decreasing delays in a communication network, to obtain the invention as specified in claim 20.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yosief Berhane whose telephone number is (571) 270-7164. The examiner can normally be reached at 9:00-6:00 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached at 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is. 571-273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/YOSIEF BERHANE/

Examiner, Art Unit 2419

/Pankaj Kumar/
Supervisory Patent Examiner, Art Unit 2419